

February 23, 2015

Situation Report: Tulane National Primate Research Center (TNPRC) Incident

Situation Summary

- Two macaques at Tulane's National Primate Research Center (TNPRC) were reported to have been infected with the bacteria *Burkholderia pseudomallei* (the cause of Melioidosis) in November, 2014. One animal (IL38) was euthanized on November 26, 2014 and the remaining animal (ID22) had initially recovered but fell ill and was euthanized on February 19, 2015. Two additional macaques, animal 3 (JD78) and animal 4 (HM81) have recently tested positive for antibodies and are both being monitored at this time.
- *According to the CDC *Burkholderia Pseudomallei* is a bacterium endemic to Southeast Asia and Northern Australia, and is typically found in contaminated water and soil. It is spread through direct contact with the contaminated source.
*Source: CDC <http://www.cdc.gov/melioidosis/>
- A USDA employee has tested positive for antibodies to *Burkholderia Pseudomallei*. Further investigation is being done to find out if, when, and where the person was exposed to *Burkholderia Pseudomallei*. The employee was discharged from the hospital Sunday February 8, 2015. The person's travel history does include a visit to a region that may have provided an opportunity for exposure. Federal and state agencies are aggressively trying to determine if the illness was related to the facility visit or past travel. The employee is currently being treated with antibiotics and is undergoing further testing February 20, 2015.
- All Select Agent Research at TNPRC has been suspended.

Actions by Agencies – All new updates will be in **BOLD RED** letters.

IC Group Meeting- Next meeting Wednesday, February 25, 2015 at 9:00am

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CDC

- **Laboratory results:**

- On Friday afternoon, CDC's laboratory reported that all soil and water samples were negative for *Burkholderia pseudomallei* by two tests: polymerase chain reaction (PCR); and culture.
- CDC staff involved in both the select agent and epidemiologic investigations continued their analyses of the material collected during their site visits. Decisions about future visits will be based on those assessments.
- In the interagency scientific working group conference call, two environmental working groups were created. One group will assess risk to animal health, including wildlife, livestock, and domestic animals, and expects to begin its work next week. The other group is being organized to assess further environmental sampling needs inside and outside the Tulane facility.
- All air samples have been processed and are negative.
- Soil and water samples are expected to be complete by Wednesday, February 25, 2015. Interpretation of the results, in the context of other parts the investigation, will likely take longer.

- **Epidemiologic Investigation:**

- CDC is awaiting receipt of blood samples from Tulane workers that were collected on Wednesday, February 18.
- CDC investigators, with USDA investigators, are collecting additional information to assess whether monkeys were exposed to *B. pseudomallei* in the animal health clinic. The additional information includes records of all monkeys seen in the clinic within specific time periods, as well as health and risk assessments for all workers with clinic access. A plan to collect blood samples from monkeys who were in the clinic at that time is in discussion.

- **Workgroup Update**

- The technical working group will meet by conference call on Friday, February 20 at 10 AM CST.
- Supported the identification and coordination of representatives to the Science Technical Working Group.

- **Safety Update**

- CDC/NIOSH provided updates to federal safety plan and submission to Tulane for review by safety officer. Safety Plan was finalized and Tulane biosafety officer has been designated as the Safety Officer in the plan.

- **Animal Investigation**

- Discussions with USDA and other partners regarding sampling plan sites.
- CDC organized a call with participation of the Tulane laboratory scientist, TNPRC management, CDC (Alex Hoffmaster and his team, Henry Walke), USDA, and LA including the State Health Officer, State Epidemiologist, and State Veterinarian. The call discussed the approach regarding interpretation of laboratory results.
- CDC received 43 sera from Tulane on 2/11.
- Discussions with USDA and other partners regarding sampling plan sites.
- Began CDC lab analysis of the 43 sera from Tulane received on 2/11.

- **Human Investigation**

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- Participated with interagency discussion regarding risk levels and testing needs. General consensus reached. FAQ related to sample collection, storage and confidentiality.
- Developed script to communicate testing options with those possibly exposed and provided to State Epi for contacting and informing participants from 2/10 sampling event. Follow up will request participants to select testing or banking of their samples.
- Obtained access to risk surveys of workers and in progress of reviewing.
- CDC received 1 human serum specimen from Emory on 2/11.
- Reviewed risk surveys of Tulane workers. Identified that 9 workers are at low risk, with none found to be at moderate or high risk. All individuals claim to be using appropriate PPE other than clinical lab that grew bacteria in open area.
- Met with Tulane staff to communicate options for serum testing. Separate meetings were provided for two separate risk groups.
- Ran IHA on NHP sera and inspector serum. Results expected by Friday 2/13.
- **Environmental Investigation**
 - CDC will include a representative in the environmental assessment group that is reforming to assess risk of environmental spread and risk to wildlife and domestic animals in the area. The group will assess when to make its next visit to the facility.
 - CDC received Soil and air samples received from EPA and Tulane on 2/11.
 - Discussions with EPA regarding testing sites and plan regarding decontamination if positive tests.
 - Processed 35 soil samples and started incubation in selective broth.
 - Transferred 6 air filters to GA public health for them to process with biowatch protocol.
 - Received new lab equipment to troubleshoot filtration issues with analysis of 13 water samples received on 2/10. Lab analysis will be conducted on Friday 2/13.
- **Select Agents Investigation**
 - *B. pseudomallei* inventory stock audit completed. Inventory is accurate and current.
 - Four of seven persons of interest by DSAT were interviewed today, including one individual who is no longer employed by TNPRC. Three of these individuals are in the process of demonstrating their donning and doffing procedures to DSAT inspectors at this time.
 - Review of a small portion of video on the entrances of the select agent laboratory in Building 5 shows various types of breaches in biosafety rules.
 - Demonstrations of PPE management observed by select agent inspectors show two consistent areas of risk:
 - Employees fail to tie their gowns in the back, allowing the gowns to flap, exposing the scrub layer underneath
 - The type of foot covers used in the lab are cumbersome to remove, increasing the risk that the scrubs underneath them could become contaminated during the doffing procedure
 - Until recently (January 2015) protocols in Building 5 involving Bp didn't require a shower out. Therefore, effective doffing technique was critical in preventing contamination of the scrub layer under the PPE used in the lab. Since the scrubs weren't changed, any contamination during doffing could be carried elsewhere on the campus.
 - Two of the seven individuals of interest have duties involving the checking of infected animals in the laboratories, and the feeding of monkeys in the colony. Since the monkeys are fed by hand spreading the food, it is conceivable that an individual could contaminate the monkey food via this route.
 - One of the seven individuals of interest (not one of the two individuals mentioned in the previous bullet) had on two previous occasions had been counselled for PPE infractions (NIOSH record review).

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- **Communications**
 - CDC PIO continues to monitor press coverage and respond to queries.
- **Other**
 - Demobilized two staff, Jason McDonald and LT James Gooch.

USDA

- **USDA Risk Assessment team is traveling to Covington, LA today. They will meet with the State and Tulane to discuss next steps for additional environmental sampling and wildlife sampling.**
- **USDA and CDC are working on a plan for the sampling of NHP in the clinic in order to systematically assess infection status in the clinic.**
- **USDA has added a senior epidemiologist to the team. He is working on putting together a summary of all animals tested with locations and cohort contacts in order to track the expanding number of potentially exposed animals. USDA has asked Tulane for data on the animals and requested test results from CDC on the NHP tested to date.**
- Select Agent investigation: Working with CDC to complete our select agent inspection report.
- Status of NHP in veterinary clinic: Coordination call with CDC to discuss sampling plan of potentially exposed clinical animals and colony cohorts of known infected and positive titer NHP.
- Risk Assessment: Risk analysis team will travel to Covington and arrive Monday evening, February 23. They will work with LA DWF and LA DAF on the sampling protocol for wildlife as well as continued assessment of further environmental sampling.
- Tentatively scheduled to come back to conduct additional testing the first week of March.
- Collected samples from 43 primates within the facility on February 10, 2015.
- Currently working on a future plan to capture rats and cats for testing

EPA

- Tentatively scheduled to come back to conduct additional testing the first week of March.
- Tulane samplers with oversight from EPA Contractors collected 13 water samples from various locations on the South Campus and shipped to the CDC laboratory in Atlanta.
- Daily air samples collected from locations around the South Campus and have been shipped to CDC Atlanta.
- Soil samples have been collected from 35 locations outside of the cages on the South Campus and shipped to CDC.
- February 11, 2015, Tulane personnel with oversight from EPA collected a total of 5 samples from the two pens which housed the infected primates.
- One surface soil sample was collected from pen R24. This pen has a mostly gravel floor so only one sample was collected on February 11, 2015.
- Four samples were collected in pen G12. Two (4 point composite) surface soil samples were collected and two grab samples from a depth of approximately 20 inches were collected on February 11, 2015.
- Tulane personnel with EPA oversight collected two soil samples on February 12, 2015, from a parking lot on the North Campus used by vehicles which routinely travel between the two campuses.
- Swab samples were collected from two of the vehicles.
- A water sample was collected from the "Lift Station" on the North Campus.

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- Three air samples were collected. Two of the samples were from the South Campus and one sample was located at the North Campus.
- All samples will be shipped February 12, 2015 to the CDC laboratory in Atlanta. This will conclude the sampling effort this week. EPA personnel will demob from the incident tomorrow.

OPH

- Attending daily UCG meetings at the St. Tammany EOC to obtain visibility on multi-agency response activities;
- Participating in TNPRC conference calls to offer epidemiologic opinion;
- Serving as liaison between CDC subject matter experts and the State Health Officer;
- Serving as liaison between subject matter experts at Tulane and the state response personnel.
- ID Epi staff will contact individuals whose blood was collected to determine preference for immediate testing or banking of samples.
- ID Epi staff will directly communicate test results to individuals who opt for immediate testing in order to protect the confidentiality of health information.

LDAF

- **LDAF panning to include Burkholderia pseudomallei as a reportable disease by Louisiana accredited veterinarians**
- **LDAF consulted with Dr. Ken Angel of USDA VS on developing the questionnaire for pets and livestock of Tulane workers**
- **LDAF coordinating site visit by USDA VS Risk Assessment Team to Covington on Tuesday**
- Participating in UCG Scientific Advisory Committee meetings
- Working with USDA Center for Epidemiology and Animal Health (CEAH) to develop an information sheet to inform accredited veterinarians about the disease
- Participating on CEAH's Risk Assessment subgroups to develop animal and environmental sampling plans
- Meeting with CEAH Risk Assessment group at 9:00am in Covington on Tuesday, February 24, 2015 at St. Tammany Parish EOC
- Emphasizing short term and long term monitoring plans
- LDAF participating in UCG Scientific Advisory Committee to develop action plan when tests results are received-air, soil, water, human, monkey
- LDAF assigned Foreign Animal Disease/Emerging Disease Incident (FAD/EDI) case number by USDA to participate in Tulane National Primate Research Center (TNPRC) investigation of Burkholderia pseudomallei (BP) laboratory breach
- 2 LDAF personnel TB tested, medically screened, and fit tested for PPE in preparation for site visit to Tulane
- 2 LDAF personnel were part of initial site visit investigation of TNPRC on Jan 22, 2015
- LDAF obtained testing protocols for environmental soil and water from CDC and NVSL in preparation for possible environmental sampling
- 17 LDAF personnel fit tested and medically screened to assist in environmental sampling or to oversee testing of primates

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- LDAF personnel part of second site visit to Tulane to tour breeding colony and waste water sources on Feb 5, 2015
- LDAF personnel participating in daily Unified Command Group (UCG) Meeting and conference calls
- LDAF worked with USDA to develop Vehicle Cleaning & Disinfection Plan
- LDAF working with USDA Center for Epidemiology and Animal Health (CEAH) on risk of B. pseudomallei spread to livestock and aquaculture from Tulane
- 2 LDAF personnel tested by DHH for possible exposure to BP
- Attending UCG meetings in person and via conference call

LDWF

- As of 2/19/15, LDWF has brought the US Fish and Wildlife Service, USDA Wildlife Services and the National Wildlife Health Center into the loop.
- These agencies participated in the USDA Risk Assessment call at 10:30 am (Central time). All have agreed to advise or participate as needed.
- LDWF assigned the State Wildlife Veterinarian to help with develop protocols dealing with local wildlife that might have been around the research facility.

Public Information

- Updates are being distributed to the media as new information becomes available.
- Saturday February 7, 2015 a press conference was held regarding the incident.

Acronyms

Bpm - Burkholderia pseudomallei

CDC - Centers for Disease Control and Prevention

DHH – Department of Health and Hospitals

EOC - Emergency Operations Center

EPA - Environmental Protection Agency

GOHSEP - Governor's Office of Homeland Security and Emergency Preparedness

IC - Incident Command

LDAF – Louisiana Department of Agriculture and Forestry

LDEQ - Louisiana Department of Environmental Quality

LDWF – Louisiana Department of Wildlife and Fisheries

OPH - Office of Public Health

TNPRC - Tulane National Primate Research Center

UCG - Unified Command Group

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USDA - United States Department of Agriculture